Amendments to the Specification:

Page 1, please delete the originally filed title and insert the following substitute title.

MICROSILICA MATERIALS WITH IMPROVED POZZOLANIC ACTIVITY

Page 6, delete paragraph [0033], and insert the following amended paragraph.

[0033] FIG. 2 shows a comparative graphic of compressive strength (ASTM C-311) for ignimbrite mixtures pairs from FIG. 1 with Portland cement, using Portland cement as ~~witness~~ a control (first column of each series) at 1, 3, 7 and 28 days.

Page 8, delete paragraphs [0046], [0047] and [0048] and insert the following amended paragraphs.

[0046] FIG. 15 shows a comparative graphic of compressive strength (ATSM C-311) in concrete mixtures with the microsilica of the invention (series A to D) and silica fume (series E to G) at 3, 7 and 28 days, using Portland cement as ~~witness~~ a control (T). The used proportions of the materials were 5% (A and E), 10% (B and F), 15% (C and G) and 20% (D).

[0047] Figure 16 shows a comparative graphic of flexion strength in concrete mixtures with the microsilica of the invention (series A to D) and silica fume (E to

G) at 7 and 28 days, using Portland cement as ~~witness~~ a control (T). The used proportions of the materials were 5% (A and E), 10% (B and F), 15% (C and G) and 20% (D).

[0048] Figure 17 shows a comparative graphic of abrasion index in concrete mixtures with the microsilica of the invention (series A, C and E) and silica fume (series B, D and F) at 1, 3, 7 and 28 days, using concrete 300 as ~~witness~~ a control (T). The values are expressed in material weight loss by cycle (g). The proportions of the materials used were 5% (A and B), 10% (C and D) and 15% (E and F).

Page 9, delete paragraphs [0049], [0050], [0051] and [0052], and insert the following amended paragraphs.

[0049] Figure 18 shows a comparative graphic of chloride ion penetrability (ASTM C-1202) in concrete mixtures with the microsilica of the invention (series A) and silica fume (B), using Portland cement as ~~witness~~ a control (T). The low, very low and moderate permeability zones can be distinguished.

[0050] Figure 19 shows a comparative graphic of sulphate attack resistance (ATSM C-1012) in concrete mixtures with the microsilica of the invention (series A to C) and Portland cement as ~~witness~~ a control (T) at different times. The material proportions used were 5% (A), 10% (B) and 15% (C).

[0051] Figure 20 shows a comparative graphic of potential resistance to alkali aggregate reactivity (ASTM C-227) in concrete mixtures with the microsilica of the invention (Series A to D) and Portland cement as ~~witness~~ <u>a control</u> (T) at different times. The proportions of used materials were 5% (A), 10% (B), 15% (C) and 20% (D).

[0052] FIG. 21 shows a comparative graphic of resistance to attack by alkali aggregate reaction (ASTM C-1260) in concrete mixtures with the microsilica of the invention (Series A, D and E), silica fume (B series), flying ashes (C series) and low alkali Portland cement as ~~witness~~ <u>a control</u> (T series) at 16 days. The proportions of used materials were 10% (A and B), 15% (D), 20 (E) and 25% (C).

Page 13, delete paragraph [0068], and insert the following amended paragraph.

[0068] The pozzolanic index of the materials of the invention reaches greater values than 120% with respect to cement ~~witness~~ <u>control</u> at 28 days in a consistent way, similar values than the values reached by highly processed microsilicas.

Page 22, delete paragraph [0103], and insert the following amended paragraph.

[0103] The treated samples from pozzolanic material obtained in example 2,

were evaluated in their pozzolanic index according to ASTM C-311 and compared their developed compressive strengths in cements with these materials and silica fume. This method establishes in a general way, that the pozzolanic material must be mixed with Portland cement in a relation in weight of 20:80 respectively and make compressive strength tests according to ASTM C-109 to this mixture, comparing the obtained results with the compressive strength of the Portland cement used ~~like witness~~ as a control; the pozzolanic index of the proven material, turns out to divide the compressive strength mixture of this material by the compressive strength of the cement ~~witness~~ control and to multiply it by 100.

Page 22, delete paragraph [0105], and insert the following amended paragraph.

[0105] As it can be observed in table 5 and Figure 2, the great majority of cements with the proven pozzolanic materials, exhibited greater values of compressive strength at 28 days, as much in crude materials as calcined, with respect to the cement ~~witness~~ control and to the cement with silica fume (see Figure 5). Also in all cases, the cement with crude pozzolanic material developed a smaller value of compressive strength that the calcined material.

Page 26, delete table 9 and insert the following amended table.

Table 9

Time	**Compressive strength (Kg/cm^2)**		**Method**
	~~Witness~~ Control	**Mix 20%**	
24 hrs	135.95	107.85	ASTM-C311
3 days	253.55	227.11	ASTM-C311
7 days	303.53	291.13	ASTM-C311
28 days	391.91	483.34	ASTM-C311
Pozzolanic index 28 days		123%	ASTM-C311

Page 27, delete paragraph [0115], [0116] and [0117] and insert the following amended paragraphs.

[0115] The pozzolanic material of example 6 was mixed with Portland cement in different proportions and compared with similar mixtures but with silica fume like comparison material according to ASTM C-192. As it can be observed in Figure 15, the mixtures containing the material of the invention develop similar compressive strength values at 28 days to the obtained for mixtures containing silica fume in the same proportions. In anyone of the proportions of the material

of the invention under test, superior values of compressive strength were obtained in reference to the sample ~~witness~~ control.

[0116] The pozzolanic material of the invention was mixed with sand and Portland cement in diverse proportions to obtain concrete mortar mixtures according to ASTM C-192. The mixtures containing the pozzolanic material, developed greater values of flexion resistance at 28 days in comparison with mixtures containing silica fume in the same proportions, as well as with a ~~witness~~ control (see Figure 16). The values of flexion resistance in mixtures with 5 to 15% of the pozzolanic material were very similar to each other.

[0117] Diverse mixtures of concrete were obtained according to ASTM C-192 altogether with different proportions of pozzolanic material. As it is observed in Figure 17, the mixtures containing the pozzolanic material exhibited a smaller loss of weight in all cases, in comparison with mixtures containing silica fume and concrete 300 like ~~witness~~ the control. The most surprising effect was observed in the proportion at 10%, where the loss of weight value of the mixture was 58% minor to the observed for the mixture with the same proportion of silica fume.

Page 28, delete paragraph [0119] and [0120] and insert the following amended paragraphs.

[0119] Mortar mixtures with the pozzolanic material were tried according to ASTM C-1012. The samples containing the pozzolanic material exhibited a very

low expansion percentage during the test, even until at 28 weeks, independently of the used percentage of pozzolanic material (see Figure 19). Portland cement T-2 used ~~like witness~~ as a control, reported a value 97% greater than the observed for samples with the pozzolanic material at 28 weeks.

[0120] Mortar mixtures with pozzolanic material were tried under conditions according to ASTM C-227. As it can be observed in Figure 20, the mixtures with percentage from 10 to 20% of pozzolanic material conserved an expansion value smaller to 0.01% during the test, whereas the sample with 5% reached a value of 0.03% at 6 months. Nevertheless, all the previous values were 90% lower in all ages compared with the observed values for ~~witness~~ the control.